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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/617,786	07/14/2003	Hung-Chang Chao	CHAO3021/EM	4070
23364	7590	08/03/2004	EXAMINER	
BACON & THOMAS, PLLC 625 SLATERS LANE FOURTH FLOOR ALEXANDRIA, VA 22314			BOEHLER, ANNE MARIE M	
			ART UNIT	PAPER NUMBER
			3611	

DATE MAILED: 08/03/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/617,786

Applicant(s)

CHAO, HUNG-CHANG

Examiner

Anne Marie M. Boehler

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-5 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-5 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☒ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

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1. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

2. Claims 1-5 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

In claim 1, applicant claims a seat tube "inserted into the joint tube". However, this recitation is not supported by the detailed disclosure and appears to be inconsistent with it. Applicant's disclosure indicates that the seat tube and joint tube are fixed together. However, in the embodiment of Figures 1-5, the seat tube 36 is split and the quick release 26 is fitted over the slit to press the slit portion against the outer circumference of another frame member (apparently the seat post 22). It may be that the seat tube is slid over the joint tube 19, but it clearly cannot be inserted into it. From the drawings it appears that the seat tube and joint tube are the same diameter and they are only interconnected via the seat post 22, which extends through them both. Therefore, for the purpose of this Office Action it is assumed that applicant intended to claim the embodiment of Figures 1-5 in claims 1-4, including a quick release 25 that secures the joint tube around the seat tube 22 and a quick release 26 that secures the seat tube 36 around seat post.

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Regarding the embodiment shown in Figures 7 and 8, the seat tube and joint tube are directly connected, however, the seat tube is also not inserted into the joint tube (as recited in claim 1). As shown in Figure 8, the seat tube 36 has an external thread and the joint tube has an annular flange 68. The frame parts are held together by a nut 84 that covers flange 68 on joint tube and mates with threads 85 on seat tube 36. This is contradictory to the recitation in claim 5 of a flange on the lower end of the seat post. It is also inconsistent with page 6, lines 26-27, of applicant's detailed disclosure, which recites "annular flange 68 is formed at a lower end of the seat post 22 for securing to the union nut 84 by snapping. Again, Figure 8 clearly shows the flange 68 on the joint tube 19, not on the seat post. No flange is shown on the seat tube in any of the drawings and if there were a flange on the seat post, it is not clear how it could cooperate with the nut and what is meant by "snapping". For the purpose of this Office Action, it is assumed that applicant meant to claim the flange on the joint tube, not the seat tube, however, correction of the claim and the detailed disclosure is required.

3. The disclosure is objected to because of the following informalities: On page 6, line 10, "60further" is unclear.

Appropriate correction is required.

4. Claims 1-5 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

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In claim 1, lines 12-13, applicant erroneously claims a seat tube "inserted into the joint tube". As indicated above, the seat tube disclosed in both embodiments is incapable of being inserted into the joint tube.

In claim 5, lines 2-3, applicant erroneously claims an annular flange at a lower end of the seat post. However, this is inconsistent with applicant's detailed disclosure (Figures 7 and 8).

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

6. Claims 1 and 4 are rejected under 35 U.S.C. 102(e) as being anticipated by Ritchey.

Ritchey shows a break apart bicycle frame having a front frame section that includes a head tube 11, a fork, handlebars and front wheel (shown as conventional

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bicycle parts in Figure 14), a crossbar 12, a down tube 13, and a joint tube 50. A rear frame section includes foot pedals 4, a sprocket wheel on front axle (unnumbered in Figure 14), a chain stay 15, a seat stay 150, seat tube 16, and a sleeve 30 extending forward from the bottom bracket 14. A seat post 17 is inserted through the joint tube 50 and the seat tube 16 and is clamped to the joint tube and seat place by respective quick release devices 601, 604, that apply pressure to a slit portion of the seat tube and the joint tube.

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ritchey.

Ritchey shows a break apart bicycle frame including all of the claimed features except it shows a connection between the sleeve 30 and the down tube 13 that does not include a slit upper end of the sleeve. However, Ritchey teaches a connection mechanism between the seat tube 16 and seat post 17 that includes a split upper sleeve section of the seat tube and a quick release mechanism on the sleeve for deforming the split portion of the seat post to form a fixed connection.

It would have been obvious to one of ordinary skill in the art to provide the connection between the sleeve and down tube of Ritchey with a slit portion, as taught

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with respect to the seat tube connection, in order to provide a conventional and inexpensive quick release connection.

9. Claims 2 and 3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ritchey as applied to claim 1 above, and further in view of Bierherr.

Ritchey shows all of the claimed features except a safety pin extending through radial apertures in the down tube and sleeve.

Beieherr shows a quick release frame connection including a split sleeve in frame tube 9, a quick release device 24 for deforming the split sleeve and a safety pin 60 (Figure 6) that extends through radial apertures in the clamped frame parts 8, 9, for locking them together.

It would have been obvious to one of ordinary skill in the art to provide the Ritchey down tube/sleeve connection with a slit, clamp and safety pin connection, as taught by Bierherr, in order to provide a secure and inexpensive connection.

10. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ritchey as applied to claims 1-5 above, and further in view of Brenner.

Ritchey shows all of the claimed features except a connection between the seat tube and seat post that includes an internally threaded nut and an annular flange on the joint tube.

Brenner shows a break-apart bicycle frame using connectors including an internally threaded nut 20C, a radial flange 20A on one frame part and an externally threaded section on the other frame part.

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It would have been obvious to one of ordinary skill in the art to connect the seat tube and joint tube (or seat post) of Ritchey using an internally threaded nut, an annular flange on the joint tube (or seat post), and an externally threaded section of the seat tube to form the connection, as taught by Brenner, in order to provide a strong connection.

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Smilanick shows a bicycle frame coupling using a nut connector.

Krumm shows a break apart bicycle frame using multiple clamps 7, 8.

Underwood shows a break-apart bicycle.

Chen shows a clamp for connecting bicycle frame parts.

Malec shows a bicycle frame connection with a threaded nut connector.

Chen and Montague show bicycle frames held together by seat posts.

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Anne Marie M Boehler whose telephone number is 703-308-0422. The examiner can normally be reached on 7:30-5:00, Monday-Thursday, and alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lesley Morris can be reached on 703-308-0629. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

amb 7/29/04

Anne Marie M Boehler
Primary Examiner
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